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Remarks:

This amendment is submitted in an earnest effort to advance this case to issue without delay.

The main claim has been amended to define the invention with somewhat greater particularity over the art.

Thus amended claim 7 now clearly recites a retrofit system adapted to be applied to a standard old-fashioned box-making machine having a plurality of elements that must be adjusted manually to reset the machine for a new box format. Such machines are well known and widely distributed. They are very expensive and have very long service lives, so the instant invention is aimed at a way of at least partially upgrading them so that some of the benefits of modern technology can be applied to them.

In this regard, the teachings of US patent 4,847,775 of Roch are noted as representing a wholly automated machine, one where all manual adjustment is ruled out and a central computer connected to local position detectors and local actuators serves to control the various elements of the machine. The system of the instant invention thus fills an important niche, in that often an existing old machine still functions perfectly and is completely familiar to the operating crew so that wholesale replacement, even with an arguably better machine, is less likely to lead to an

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increase in efficiency than a technological tweaking that would merely upgrade the efficiency of how the existing machine is used.

According to the instant invention as defined in amended claim 7, a machine that is manually adjusted is equipped at each positionable element with a position sensor and a local display. These two devices at each station are connected to a central memory and computer that compares the actual position of each position element with a desired value and then displays, right at the respective adjustment station, what needs to be done to set the machine for another workpiece size or format.

The technology is extremely simple, all that the central computer/memory need do is act as a multilevel comparator that compares the actual-position values from the various sensors with values in a central database. The §112 rejection of claim 7 is based on a misunderstanding of the system of this invention as some sort of sophisticated control system; instead the system of this invention is much, much simpler and requires only basic comparator technology well within the grasp of the person skilled in the art. Thus the §112 rejection must fall.

In Roch there is a central computer including a memory, local sensors, and local actuators. The central computer, in response to an order to change workpiece format, compares the actual-value signals from the various sensors with the set points

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in its memory to issue orders to the respective actuators and thereby make the necessary position changes. There is nothing resembling local displays at the adjustment stations since they would serve no function so a §102 rejection of amended claim 7 on Roch is impossible. A §103 rejection on Roch is also impossible because it is never obvious to provide something that is not needed or necessary, as displaying the correction at the adjustment station would not serve any function because the adjustment is actually being carried out by the central computer.

In addition this amendment places in this case a new claim 13 that corresponds roughly to a combination of original claims 7 and 11. Thus this new claim 13 is aimed at a system that is even less centralized. Only the desired positions are stored centrally in the system of claim 13, and the differences are both calculated and displayed locally. Such an arrangement is even simpler than that of claim 7 and even more clearly avoids the §112 rejection.

The above arguments relating to amended claim 7 apply equally to new claim 13. It would never be obvious for a centralized system designed for maximum efficiency and automatic operation from the ground up to be designed to carry out computing functions at remote locations. This is just simply counterproductive and, therefore, unobvious.


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For these reasons all of the claims in the case are in condition for allowance. Notice to that effect is earnestly solicited.

If only minor problems that could be corrected by means of a telephone conference stand in the way of allowance of this case, the examiner is invited to call the undersigned to make the necessary corrections.

Respectfully submitted,
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Enclosure: None.